AD-A100 555 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
19304D MLRS, MISSILE NUMBER 002, ROUND NUMBER V-135/MD-2, 20 AP--ETC(U)
APR 81 D C KELLER

UNCLASSIFIED ERADCOM/ASL-DR-1173 NL

1 OF 1
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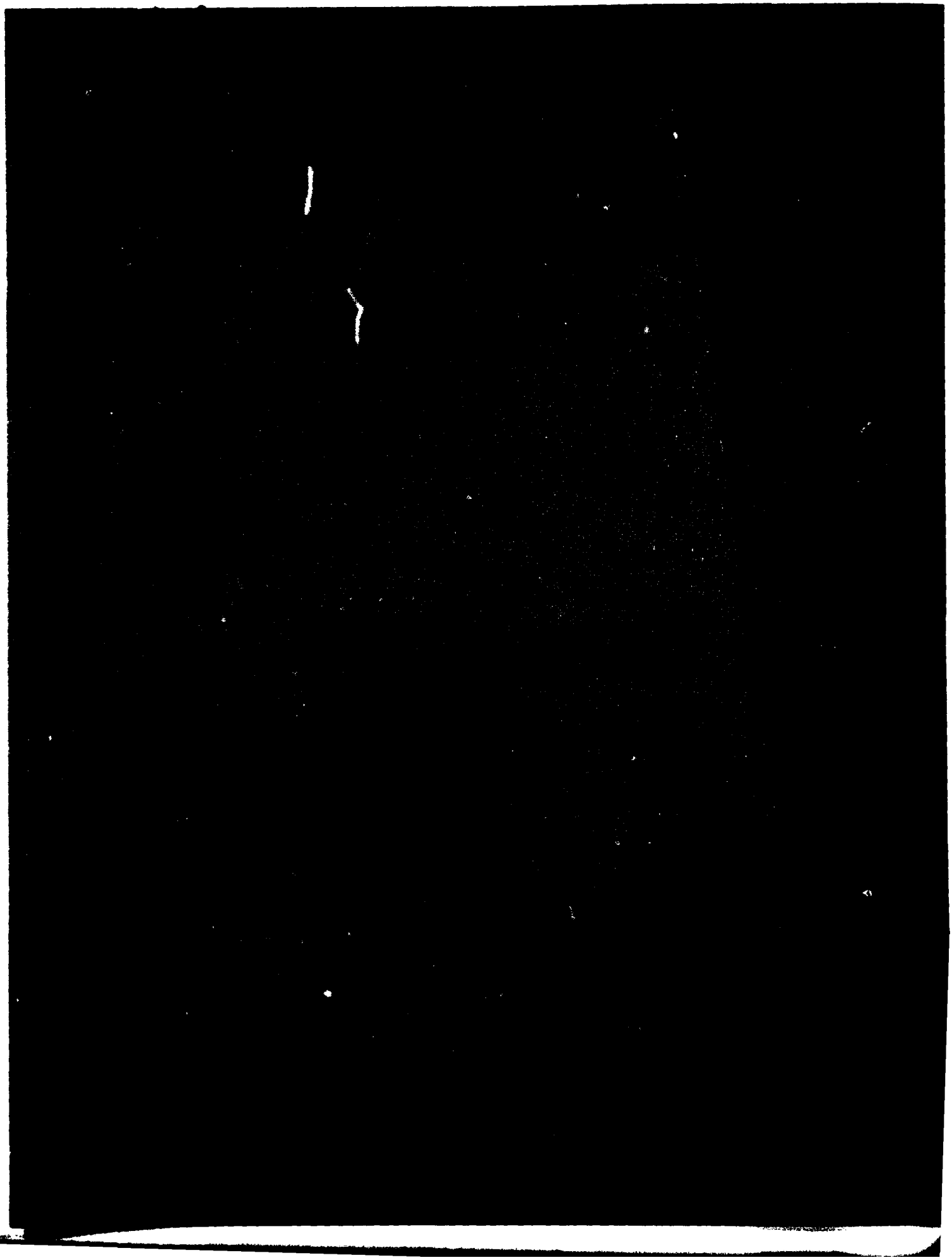

SECURITY CLASSIFICATION OF THIS PAGE *(When Data Entered)*

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1173	2. GOVT ACCESSION NO. AD-A100 535	3. RECIPIENT'S CATALOG NUMBER
4. TITLE *(and Subtitle)* 19304D MLRS Missile No. 002 Round No. V-135/MD-2		5. TYPE OF REPORT & PERIOD COVERED 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) White Sands Meteorological Team		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127-02
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		12. REPORT DATE April 1981 13. NUMBER OF PAGES 34
14. MONITORING AGENCY NAME & ADDRESS *(if different from Controlling Office)*		15. SECURITY CLASS. *(of this report)* UNCLASSIFIED 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT *(of this Report)*

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)*

Approved for public release; distribution unlimited.

18. SUPPLEMENTARY NOTES

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

Meteorological data gathered for the launching of the 19304D MLRS, Missile No. 002, Round No. V-135/MD-2, presented in tabular form.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE UNCLASSIFIED

CONTENTS

INTRODUCTION

19304D MLRS, Missile Number 002, Round Number V-135/MD-2, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1200 MST on 20 April 1981. The scheduled launch time was 1200 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 met site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAWS met pilot balloon observations:

SITE	ALTITUDE
LC-33	2 KM
Nick	2 KM

(b) Air structure data (rawinsonde) were collected at the following sites.

SITE	TIME
WSD	0910 MST
LC-37	1000 MST
WSD	1140 MST
LC-37	1215 MST

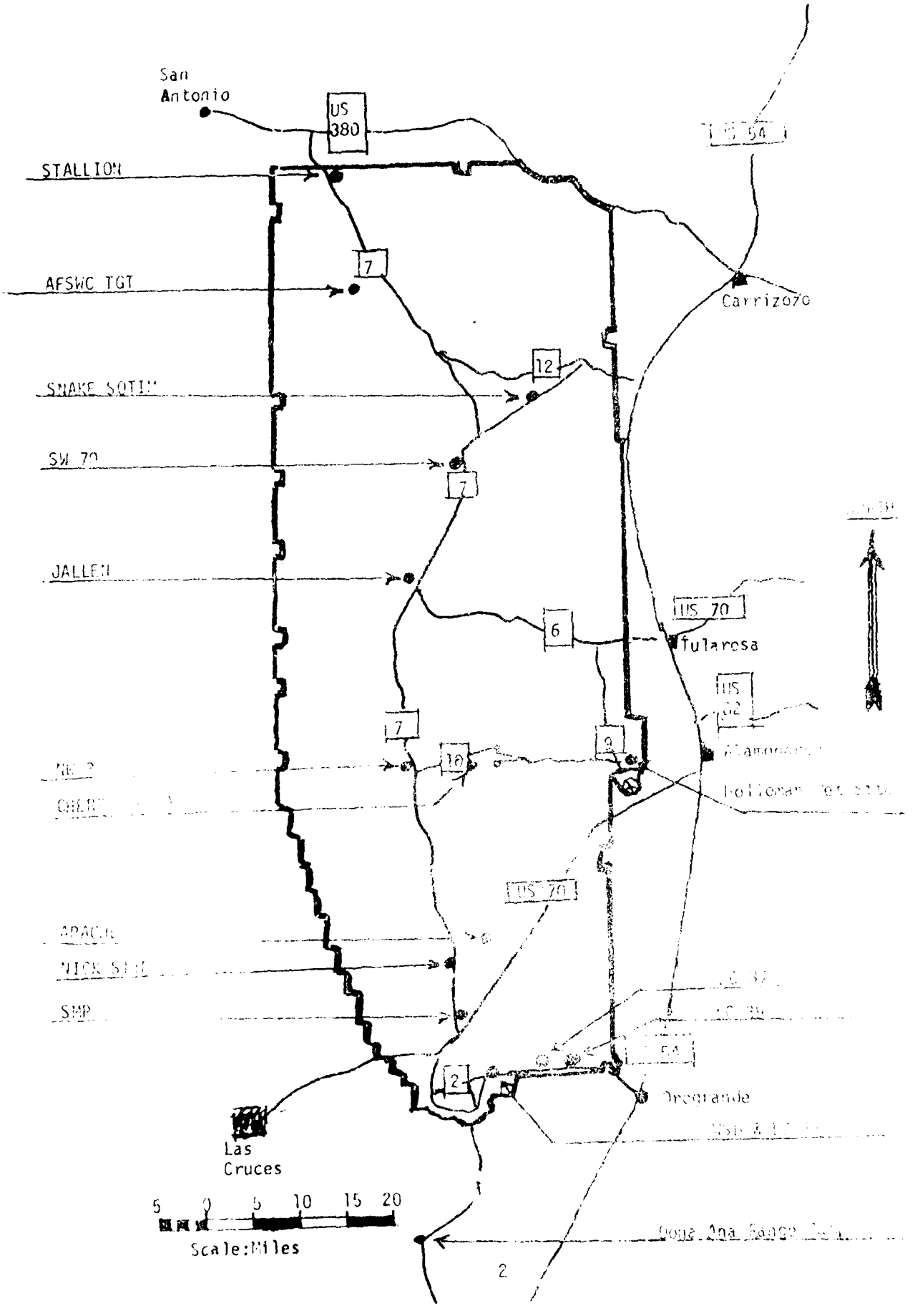
San
Antonio
US
380
STALLION
AFSWC TGT
SNAKE SOTIM
SW 70
JALLEN
7
12
7
6
7
10
9
2
Carrizozo
Tularosa
Las
Cruces
Scale:Miles
5 0 5 10 15 20

TABLE 1. Surface Observation taken at 1200 MST, 20 April 1981, at LC-33, 19304D MLRS, Missile No. 002, Round No. V-135/MD-2.

ELEVATION	3983	FT/MSL
PRESSURE	880.1	MB
TEMPERATURE	26.0	°C
RELATIVE HUMIDITY	22	
DEW POINT	2.8	°C
DENSITY	1021	GM/M^3
WIND SPEED	08	KTS
WIND DIRECTION	165	DEGREES
CLOUD COVER	0/CU/5000	AMT/TYPE/HGT

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

20 April 1981
TIME: 1200 MST

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			[illegible]		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	170	18	T-30	174	14	T-30	180	19
T-20	168	17	T-20	186	15	T-20	180	18
T-10	168	16	T-10	165	13	T-10	180	17
T0.0	162	20	T0.0	166	16	T0.0	180	17
T+10	165	17	T+10	165	13	T+10	175	17

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (420' FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, [illegible]		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	166	19	T-30	176	23
T-20	166	12	T-20	168	24
T-10	154	16	T-10	170	22
T0.0	163	17	T0.0	159	21
T+10	149	17	T+10	171	19

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			[illegible] X484,[illegible], Y185,057.73, [illegible]		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	168	MISG	T-30	165	20
T-20	177	MISG	T-20	171	20
T-10	172	MISG	T-10	171	21
T0.0	153	MISG	T0.0	150	17
T+10	174	MISG	T+10	175	20

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 20 April 1981

SITE: LC-33
TIME: 1200 MST
WSTM COORDINATES:
X= 486,037.24
Y= 182,350.16
H= 3977.30

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	200	07
150	192	13
210	191	16
270	191	19
330	190	21
390	189	23
500	190	24
[illegible]	190	26
800	190	26
950	190	27
1150	190	23
1350	190	18
1550	190	14
1750	187	14
2000	191	15

SITE: NICK
TIME: 1200 MST
WSTM COORDINATES:
X= 470,734.56
Y= 255,775.64
H= 4126.57

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	181	15
150	186	15
210	165	16
270	203	14
330	208	11
390	175	09
[illegible]	199	06
[illegible]	155	10
[illegible]	169	10
[illegible]	189	10
[illegible]	187	11
1350	183	10
[illegible]	180	08
1750	191	06
2000	180	06

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES

20 APRIL 1981

WSD 0900 MST

METCM1325065

200900122881

00000000 29470881

01349005 29390871

02298005 29130846

03340003 28730807

04371006 28240760

05343015 27790715

06354025 27460672

07358028 27200631

08376020 26860593

LC37 1000 MST

METCM1325064

201000124880

00516005 29560880

01458005 29430870

02419009 29180845

03324006 28800806

04315008 28320759

05318008 27840714

06331019 27340672

07343031 27060631

08365023 26880592

WSD 1140 MST

METCM1325065

201160122880

00409007 29950881

01360013 29760870

02355017 29350845

03361019 28960806

04368015 28480760

05329015 27990715

06362023 27610673

07377022 27220632

08381026 27000594

LC37 1215 MST

METCM1325064

201220124878

00356007 29920878

01300009 29510868

02305012 29200843

03335012 28810805

04369011 28360758

05350016 27820713

06356020 27340671

07372024 26990630

08380026 26770591

SIGNIFICANT LEVEL DATA

STATION ALTITUDE 3989.0 FEET MSL
20 APR. 61 0900 GRS [illegible]
ASCENSION NO. 280

11000 20260
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE [illegible]

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
881.1	3989.0	20.9	-1.0	23.0
871.2	4309.0	20.4	-5.4	17.0
850.0	5002.9	18.0	-6.6	18.0
787.1	7135.9	11.6	-9.4	22.0
700.0	10307.9	3.4	-9.5	38.0
679.1	11112.4	1.0	-11.4	39.0
653.1	12143.2	.8	-22.8	15.0
593.0	14660.6	-4.3	-27.7	14.0
528.0	17638.2	-10.6	-29.7	19.0
504.0	18807.6	-13.3	-31.9	20.0
501.6	18920.9	-13.[illegible]	-33.2	17.0
457.0	21[illegible]	19.[illegible]	-38.2	17.0
451.[illegible]	[illegible]	-19.[illegible]	-38.5	16.0
401.0	24[illegible]	-26.3	-43.9	17.0
3[illegible]	[illegible]	32.[illegible]	-49.5	17.0
30[illegible]	[illegible]	-42.[illegible]		

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 81 0900 HRS MST
ASCENSION NO. 280

UPPER AIR DATA
1100020280
WHITE SANDS
TABLE 7

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	881.1	20.9	-1.1	23.0	1041.3	668.9	.0	.0	1.000257
4000.0	880.8	20.9	-1.1	22.8	1041.0	668.8	178.4	.0	1.000257
4500.0	865.3	19.7	-5.8	17.3	1027.4	667.3	178.4	.9	1.000246
5000.0	850.1	18.0	-6.6	18.0	1015.4	665.3	178.4	1.7	1.000243
5500.0	834.9	16.5	-7.2	18.9	1002.5	663.6	178.4	2.6	1.000239
6000.0	820.0	15.0	-7.8	19.9	989.8	661.8	178.4	3.5	1.000236
6500.0	805.4	13.5	-8.5	20.8	977.2	660.1	183.6	3.4	1.000233
7000.0	791.0	12.0	-9.2	21.7	964.9	658.3	190.4	3.3	1.000229
7500.0	776.6	10.7	-9.1	23.8	951.8	656.8	196.2	3.9	1.000226
8000.0	762.4	9.4	-9.6	26.4	938.6	655.3	200.2	4.7	1.000224
8500.0	748.4	8.1	-8.9	28.9	925.6	653.6	198.8	6.9	1.000221
9000.0	734.7	6.8	-9.0	31.4	912.8	652.3	197.8	9.2	1.000218
9500.0	721.2	5.5	-9.1	33.9	900.3	650.8	196.6	12.4	1.000216
10000.0	708.0	4.2	-9.4	36.4	887.9	649.3	195.7	15.5	1.000213
10500.0	695.0	2.8	-10.0	38.2	875.9	647.7	195.1	18.1	1.000209
11000.0	682.0	1.3	-11.1	38.3	864.3	646.9	195.0	21.2	1.000206
11500.0	669.2	.5	-14.7	30.0	849.7	645.3	194.3	24.6	1.000199
12000.0	656.7	.8	-20.1	25.6	834.4	643.1	200.2	27.3	1.000192
12500.0	644.7	.1	-23.1	18.3	821.0	641.1	201.9	29.6	1.000186
13000.0	632.7	-.9	-24.0	18.2	808.4	639.9	203.2	28.8	1.000184
13500.0	620.9	-1.9	-25.3	17.3	795.1	638.7	203.2	27.4	1.000181
14000.0	609.3	-3.1	-27.0	15.1	784.0	637.0	203.2	23.4	1.000178
14500.0	598.0	-4.0	-27.9	14.1	772.6	635.3	208.4	19.0	1.000175
15000.0	586.9	-5.0	-27.8	13.7	760.1	633.1	211.2	19.5	1.000173
15500.0	576.1	-6.1	-28.1	13.4	748.4	631.8	213.1	20.6	1.000170
16000.0	565.4	-7.3	-28.9	13.2	736.8	630.3	214.4	23.6	1.000167
16500.0	554.9	-8.2	-29.8	13.1	725.5	628.5	215.3	25.1	1.000165
17000.0	544.3	-9.3	-24.2	17.9	714.3	626.8	220.6	25.2	1.000162
17500.0	534.1	-10.3	-28.0	18.7	703.3	625.1	222.1	25.9	1.000160
18000.0	523.1	-11.5	-30.1	19.1	692.0	623.4	223.2	26.8	1.000157
18500.0	513.2	-13.0	-33.1	19.2	683.1	622.4	223.2	27.8	1.000155
19000.0	503.1	-15.3	-36.1	17.1	671.3	620.7	224.2	28.9	1.000152
19500.0	493.1	-15.7	-36.2	17.1	661.3	619.8	228.0	28.8	1.000150
20000.0	483.1	-16.2	-33.4	17.1	651.4	618.6	229.3	28.8	1.000147
20500.0	473.3	-17.7	-36.1	17.1	641.7	617.3	229.3	27.7	1.000145
21000.0	463.7	-19.4	-37.1	17.1	632.2	616.3	230.1	27.5	1.000143
21500.0	454.2	-21.1	-36.3	17.1	623.0	615.0	231.3	27.4	1.000141
22000.0	444.9	-22.9	-34.0	17.1	613.8	613.8	233.1	27.1	1.000139
22500.0	435.8	-24.7	-34.0	17.1	604.9	612.5	234.7	26.3	1.000137
23000.0	426.9	-26.6	-34.0	17.1	596.2	611.3	235.1	25.4	1.000135

STATION ALTITUDE [illegible]
20 APR [illegible] 0900 HRS A.T
ASCENSION NO. [illegible]

UPPER AIR DATA
[illegible]
WHITE SANDS
TABLE 7 CONT

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	416.0	-24.2	-42.4	16.7	582.1	614.7	237.7	24.3	1.000131
24000.0	407.5	-25.5	-43.3	16.9	573.0	613.2	239.4	24.2	1.000128
24500.0	399.0	-26.7	-44.2	17.0	563.9	611.7	241.0	24.6	1.000126
25000.0	390.6	-27.9	-45.3	17.0	554.7	610.2	242.5	25.9	1.000124
25500.0	382.4	-29.1	-46.3	17.0	545.7	608.7	243.3	28.1	1.000122
26000.0	374.3	-30.3	-47.3	17.0	536.9	607.2	243.8	30.8	1.000120
26500.0	366.5	-31.5	-48.3	17.0	528.2	605.7	246.2	31.8	1.000118
27000.0	358.7	-32.7	-49.3	17.0	519.6	604.2	248.3	32.7	1.000116
27500.0	351.0	-33.9	-51.2	15.3**	511.0	602.6	249.0	33.3	1.000114
28000.0	343.3	-35.1	-53.5	13.1**	502.4	601.1	249.3	34.0	1.000112
28500.0	335.8	-36.3	-56.0	11.0**	494.0	599.6	247.9	34.9	1.000110
29000.0	328.5	-37.5	-58.6	8.8**	485.7	598.0	248.3	36.6	1.000108
29500.0	321.4	-38.7	-61.7	6.7**	477.6	596.5			1.000106
30000.0	314.4	-39.9	-65.5	4.5**	469.6	594.9			1.000105
30500.0	307.5	-41.1	-70.5	2.4**	461.7	593.4			1.000103
31000.0	300.8	-42.3	-85.3	.3**	454.1	591.9			1.000101

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 81 0900 HRS MST
ASCENSION NO. 280

MANDATORY LEVELS
1100020280
WHITE SANDS
TAB - B

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		RELATIVE	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	4999.	18.[illegible]	-6.6	18.	178.9	1.7
800.0	6683.	13.0	-8.7	21.	186.1	3.3
750.0	8445.	8.2	-8.9	29.	198.9	6.6
700.0	10298.	3.4	-9.5	38.	195.3	17.0
650.0	12255.	.5	-23.1	15.	201.1	28.5
600.0	14345.	-3.7	-27.1	14.	207.8	20.2
550.0	16580.	-8.4	-28.9	17.	218.9	25.1
500.0	18980.	-13.7	-33.4	17.	227.5	28.0
450.0	21573.	-19.6	-38.9	16.	232.0	27.4
400.0	24404.	-26.5	-44.1	17.	240.8	24.4
350.0	27521.	-34.0	-51.5	15.**	250.0	33.4
300.0	31006.	-42.5				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL
20 APR. [illegible] 1000 [illegible]
ASCENSION NO. 30

SIGNIFICANT LEVEL DATA
1100180030
[illegible] 37
TABLE 9

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
[illegible]	[illegible]	[illegible]	-3.5	18.0
[illegible]	[illegible]	[illegible]	-3.9	20.0
850.[illegible]	[illegible]	[illegible]	[illegible]	23.0
[illegible]	[illegible]	[illegible]	-4.9	25.0
70[illegible]	[illegible]	[illegible]	-9.7	38.0
6[illegible]	[illegible]	[illegible]	-10.6	50.0
647.0	1[illegible]5	-2.0	-15.7	34.0
62[illegible]	[illegible].6	2.0	-22.4	20.0
58[illegible].0	[illegible]	-4.0	-25.2	18.0
[illegible]	[illegible]9030.[illegible]	-13.2	-31.9	19.0
[illegible]	[illegible].5	[illegible]	-42.5	20.0
344.4	[illegible]79.3	-35.0	-49.5	21.0
[illegible]	[illegible].8	-42.0		
258.[illegible]	[illegible]	[illegible]		
250.[illegible]	[illegible]	[illegible]		
200.[illegible]	39799.2	[illegible]		
183.0	[illegible]	[illegible]		
173.[illegible]	427[illegible].9	[illegible]		
16[illegible]	4384[illegible].9	[illegible].7		
155.8	449[illegible].6	-56.4		
150.[illegible]	[illegible]3780.5	-56.5		
142.[illegible]	45807.1	-57.6		
132.[illegible]	47396.7	-59.0		
118.0	50632.0	-61.4		
115.2	51225.5	-62.5		
111.2	51945.5	-62.1		
10[illegible]	[illegible]3381.4	[illegible]		
100.0	54097.2	-63.1		
[illegible]	55[illegible]	[illegible]		
[illegible]	563[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
	[illegible]			
[illegible]	[illegible]			

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 61 1000 HRS MST
ASCENSION NO. 30

SIGNIFICANT LEVEL DATA
1100180030
LC-37
TABLE 9 CON'T

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
20.0	87682.4	-47.0		
18.0	89092.9	-47.0		
14.8	94349.5	-40.4		
10.8	101512.7	-37.4		
10.0	103285.5	-34.4		
7.8	109122.1	-28.2		
7.0	111697.7	-28.2		
6.0	115374.5	-27.3		
4.8	120717.7	-26.5		

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1000 HRS MST
ASCENSION NO. 30

UPPER AIR DATA
11001A0030
[illegible]
SHEET 10

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CEL	TEMPERATURE DEWPOINT CEL	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.4	879.7	21.9	-3.[illegible]	18.6	1036.6	669.9	290.0	5.1	1.000252
4500.0	865.9	20.3	-3.6	19.1	1025.7	668.1	270.8	4.1	1.000249
5000.0	850.7	19.0	-2.7	22.8	1012.3	666.6	241.7	3.8	1.000248
5500.0	835.6	17.5	-3.4	23.7	999.4	664.9	215.5	4.5	1.000244
6000.0	820.8	16.1	-4.3	24.4	986.7	663.2	198.7	5.8	1.000240
6500.0	806.2	14.6	-5.0	25.3	974.1	661.5	190.5	6.7	1.000236
7000.0	791.5	13.1	-5.4	27.0	961.3	659.8	184.9	7.2	1.000233
7500.0	777.1	11.6	-5.9	28.6	948.8	658.1	180.0	7.7	1.000230
8000.0	762.9	10.1	-6.5	30.3	936.4	656.3	179.4	8.1	1.000226
8500.0	749.0	8.7	-7.1	31.9	924.2	654.6	180.2	8.4	1.000223
9000.0	735.4	7.2	-7.8	33.6	912.3	652.8	181.6	8.7	1.000220
9500.0	722.0	5.7	-8.8	35.2	900.5	651.1	182.0	9.8	1.000216
10000.0	708.8	4.2	-9.2	36.9	888.9	649.3	182.9	11.1	1.000213
10500.0	695.8	2.7	-9.8	39.1	877.2	647.6	183.5	12.5	1.000210
11000.0	682.8	1.3	-10.3	42.7	865.2	645.9	184.4	14.6	1.000207
11500.0	670.0	-0.[illegible]	-10.2	46.5	853.4	644.3	185.4	18.5	1.000204
12000.0	657.4	-1.5	-15.6	49.8	841.8	642.6	186.1	22.4	1.000202
12500.0	644.9	-2.1	-16.3	32.0	828.1	641.7	189.9	26.9	1.000193
13000.0	632.7	-2.5	-20.9	22.6	813.8	641.1	193.7	30.2	1.000187
13500.0	620.7	-3.0	-22.9	19.6	799.8	640.5	197.8	31.1	1.000183
14000.0	608.8	-3.5	-23.[illegible]	19.1	786.1	639.9	200.5	28.6	1.000180
14500.0	597.2	-4.0	-24.[illegible]	18.8	772.6	639.3	203.5	25.3	1.000177
15000.0	585.8	-4.6	-25.[illegible]	18.0	759.4	638.6	207.5	21.9	1.000173
15500.0	574.6	-5.5	-26.0	18.1	747.5	637.4	210.9	20.4	1.000170
16000.0	563.3	-6.7	-26.[illegible]	18.2	736.0	636.1	212.8	21.3	1.000168
16500.0	552.3	-7.7	-27.6	18.4	724.6	634.8	215.0	22.7	1.000165
17000.0	541.5	-8.8	-28.5	18.5	713.5	633.5	217.4	24.5	1.000162
17500.0	531.0	-9.9	-29.2	18.6	702.5	632.2	219.6	26.1	1.000159
18000.0	520.7	-11.0	-30.[illegible]	18.7	691.6	630.9	222.2	27.8	1.000157
18500.0	510.6	-12.0	-31.0	18.9	681.0	629.6	223.9	29.1	1.000154
19000.0	500.7	-13.1	-31.8	19.0	670.5	628.3	225.0	30.0	1.000152
19500.0	490.9	-14.3	-32.6	19.1	660.1	626.8	225.9	30.7	1.000149
20000.0	480.6	-15.5	-33.[illegible]	19.2	649.7	625.4	226.5	30.8	1.000147
20500.0	470.9	-16.8	-34.7	19.3	639.6	623.9	227.4	30.7	1.000144
21000.0	461.3	-18.0	-35.[illegible]	19.4	629.6	622.4	229.0	30.2	1.000142
21500.0	452.0	-19.2	-36.7	19.5	619.8	620.9	230.2	29.3	1.000140
22000.0	442.8	-20.4	-37.6	19.5	610.2	619.4	231.8	28.0	1.000137
22500.0	433.8	-21.6	-38.6	19.6	600.7	617.9	229.9	26.9	1.000135
23000.0	425.0	-22.9	-39.9	19.7	591.4	616.4	227.6	26.0	1.000133
23500.0	416.5	-24.[illegible]	-40.[illegible]	19.8	582.2	614.9	227.2	25.8	1.000131

STATION ALTITUDE 4651.37 FEET MSL
20 APR. 81 1000 HRS MST
ASCENSION NO. 30

UPPER AIR DATA
1100180030
LC-37
TABLE 10 CON'T

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	406.0	-25.2	-41.6	19.9	573.2	613.4	227.6	26.1	1.000129
24500.0	399.7	-26.4	-42.6	20.0	564.3	611.9	230.8	26.8	1.000127
25000.0	391.2	-27.7	-43.6	20.1	555.1	610.4	234.5	28.0	1.000124
25500.0	382.9	-28.9	-44.5	20.3	546.1	608.9	237.2	28.9	1.000122
26000.0	374.8	-30.1	-45.5	20.4	537.3	607.3	239.7	29.8	1.000120
26500.0	366.9	-31.4	-46.5	20.6	528.6	605.8	241.6	30.7	1.000118
27000.0	359.1	-32.6	-47.5	20.7	520.0	604.3	243.4	31.8	1.000116
27500.0	351.5	-33.8	-48.5	20.9	511.7	602.7	245.5	33.7	1.000114
28000.0	344.1	-35.1	-49.6	20.9**	503.4	601.2	247.2	35.5	1.000113
28500.0	336.6	-36.3	-52.1	17.5**	495.0	599.6	248.2	36.8	1.000111
29000.0	329.2	-37.6	-55.0	14.1**	486.7	598.0	249.0	38.2	1.000109
29500.0	322.0	-38.8	-58.2	10.8**	478.6	596.4	248.6	39.7	1.000107
30000.0	314.9	-40.1	-62.0	7.4**	470.7	594.8	248.1	41.3	1.000105
30500.0	308.0	-41.3	-67.4	4.0**	462.8	593.2	247.9	41.7	1.000103
31000.0	301.3	-42.6	-80.1	.7**	455.2	591.6	247.7	42.1	1.000101
31500.0	294.5	-43.7			447.2	590.1	248.5	43.2	1.000100
32000.0	287.9	-44.8			439.2	588.7	249.7	44.5	1.000098
32500.0	281.4	-45.9			431.4	587.3	250.2	47.1	1.000096
33000.0	275.1	-47.0			423.7	585.9	250.2	50.7	1.000094
33500.0	268.9	-48.1			416.2	584.5	249.5	53.5	1.000093
34000.0	262.7	-49.0			408.3	583.3	247.8	55.3	1.000091
34500.0	256.7	-49.8			400.5	582.2	246.5	57.3	1.000089
35000.0	250.8	-50.7			392.8	581.1	245.7	59.9	1.000087
35500.0	245.0	-51.3			384.8	580.2	245.0	62.3	1.000086
36000.0	239.3	-51.9			376.8	579.5	244.9	64.6	1.000084
36500.0	233.7	-52.5			369.0	578.7	244.7	67.0	1.000082
37000.0	228.3	-53.1			361.4	577.9	244.7	70.4	1.000080
37500.0	222.9	-53.7			353.9	577.1	244.8	73.9	1.000079
38000.0	217.7	-54.3			346.6	576.3	244.9	76.4	1.000077
38500.0	212.7	-54.9			339.5	575.5	244.9	78.9	1.000076
39000.0	207.7	-55.5			332.5	574.7	244.3	79.1	1.000074
39500.0	202.9	-56.2			325.6	573.9	243.3	78.1	1.000073
40000.0	198.1	-56.8			318.9	573.1	242.0	76.6	1.000071
40500.0	193.5	-57.4			312.3	572.2	241.2	81.4	1.000070
41000.0	189.1	-58.1			305.8	571.3	241.1	84.3	1.000068
41500.0	184.7	-58.8			299.5	570.4	241.6	87.3	1.000067
42000.0	180.5	-59.7			293.2	570.0	242.0	90.2	1.000065
42500.0	176.4	-60.2			286.6	571.2	242.3	90.4	1.000063
43000.0	172.4	-60.8			279.8	571.2	242.5	88.2	1.000061
43500.0	168.5	-61.5			273.6	570.0	242.7	86.0	1.000060

** THE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
1100180030

TABLE 10 CON'T

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1000 HRS
ASCENSION, NO. 30

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	TEMPERATURE DEWPOINT	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	163.4	[illegible]			265.0	570.9	242.7	83.3	1.000059
44500.0	159.5	[illegible]			257.5	572.3	242.7	80.7	1.000057
45000.0	155.7	[illegible]			250.2	573.6	[illegible]	80.3	1.000056
45500.0	152.0	[illegible]			244.4	573.5	242.9	80.0	1.000054
46000.0	[illegible]	[illegible]			238.9	573.1	[illegible]	80.2	1.000053
46500.0	[illegible]	[illegible]			233.9	572.4	[illegible]	80.9	1.000052
47000.0	141.5	[illegible]			229.1	571.4	[illegible]	81.5	1.000051
47500.0	138.1	[illegible]			224.7	570.0	241.0	81.4	1.000050
48000.0	134.8	59.4			219.7	569.5	240.3	81.2	1.000049
48500.0	131.6	[illegible]			214.8	569.0	239.6	80.8	1.000048
49000.0	128.4	[illegible]			210.0	568.5	240.1	79.4	1.000047
49500.0	125.3	[illegible]			205.3	568.0	240.3	77.9	1.000046
50000.0	122.3	60.9			200.8	567.5	241.1	74.9	1.000045
50500.0	119.4	-61.3			196.3	567.0	242.0	71.3	1.000044
51000.0	116.5	-62.1			192.2	566.0	242.8	67.7	1.000043
51500.0	113.7	-62.5			187.8	565.6	243.5	64.0	1.000042
52000.0	110.9	-62.2			183.1	565.8	244.2	60.4	1.000041
52500.0	108.2	-63.0			179.4	564.8	244.2	57.1	1.000040
53000.0	105.5	-63.8			175.7	563.7	244.2	53.9	1.000039
53500.0	103.0	-63.2			171.7	563.2	243.4	49.9	1.000038
54000.0	100.5	-63.3			166.8	564.4	241.4	44.9	1.000037
54500.0	98.0	-62.7			162.3	565.1	238.9	40.0	1.000036
55000.0	95.7	-62.3			158.1	565.7	235.6	36.5	1.000035
55500.0	93.3	-61.9			153.9	566.3	231.7	33.7	1.000034
56000.0	91.1	-63.0			151.0	564.8	227.0	31.1	1.000034
56500.0	88.9	-63.7			147.8	563.8	228.2	29.5	1.000033
57000.0	86.7	-62.8			143.3	565.5	229.6	28.0	1.000032
57500.0	84.6	-63.8			139.5	566.3	231.3	26.4	1.000031
58000.0	82.6	-61.6			135.0	566.0	234.9	24.3	1.000030
58500.0	80.5	[illegible]			133.1	565.6	239.3	22.3	1.000030
59000.0	78.6	-63.2			130.4	564.5	243.2	20.4	1.000029
59500.0	76.6	[illegible]			127.7	[illegible]	244.4	18.5	1.000028
60000.0	74.8	[illegible]			125.1	[illegible]	245.9	16.6	1.000028
60500.0	[illegible]	[illegible]			122.5	[illegible]	247.4	14.7	1.000027
[illegible]	[illegible]	[illegible]			120.0	[illegible]	[illegible]	12.8	1.000027
[illegible]	[illegible]	[illegible]			117.4	[illegible]	[illegible]	10.8	1.000026
[illegible]	[illegible]	[illegible]			114.5	559.0	[illegible]	[illegible]	1.000026
[illegible]	[illegible]	[illegible]			111.8	[illegible]	[illegible]	[illegible]	1.000025
[illegible]	[illegible]	[illegible]			[illegible]	561.3	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1000 HRS MST
ASCENSION NO. 30

UPPER AIR DATA
11001A0030
LC-37
TABLE 10 CON'T

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	61.3	-63.8			101.9	563.7	200.4	5.2	1.000023
64500.0	59.8	-64.0			99.6	563.4	170.3	6.4	1.000022
65000.0	58.3	-63.0			96.7	564.8	151.9	8.7	1.000022
65500.0	56.9	-62.0			93.9	566.1	140.3	11.1	1.000021
66000.0	55.5	-61.4			91.4	566.9	120.6	11.7	1.000020
66500.0	54.2	-61.1			89.1	567.3	104.8	13.5	1.000020
67000.0	52.9	-60.9			86.8	567.6	97.6	14.8	1.000019
67500.0	51.6	-60.6			84.6	568.0	98.5	14.3	1.000019
68000.0	50.4	-60.3			82.5	568.4	99.6	13.7	1.000018
68500.0	49.2	-60.0			80.4	568.8	104.1	13.5	1.000018
69000.0	48.0	-59.6			78.4	569.3	110.3	13.7	1.000017
69500.0	46.9	-59.3			76.4	569.7	116.4	14.1	1.000017
70000.0	45.8	-58.9			74.5	570.2	113.1	14.3	1.000017
70500.0	44.7	-58.6			72.6	570.6	108.2	14.5	1.000016
71000.0	43.7	-58.3			70.8	571.1	103.5	14.9	1.000016
71500.0	42.6	-57.9			69.0	571.5	95.8	14.1	1.000015
72000.0	41.6	-57.6			67.3	572.0	87.3	13.7	1.000015
72500.0	40.6	-57.2			65.6	572.4	79.6	13.9	1.000015
73000.0	39.7	-56.9			63.9	572.9	78.0	16.5	1.000014
73500.0	38.8	-56.6			62.3	573.3	76.8	19.1	1.000014
74000.0	37.8	-56.2			60.8	573.8	77.7	21.9	1.000014
74500.0	37.0	-55.9			59.2	574.2	81.9	25.4	1.000013
75000.0	36.1	-55.5			57.8	574.7	85.1	28.9	1.000013
75500.0	35.2	-55.2			56.3	575.1	86.0	32.0	1.000013
76000.0	34.3	-54.9			54.9	575.6	84.6	34.4	1.000012
76500.0	33.6	-54.5			53.5	576.0	83.4	36.7	1.000012
77000.0	32.8	-54.2			52.2	576.5	82.4	36.4	1.000012
77500.0	32.0	-53.8			50.9	576.9	81.5	38.1	1.000011
78000.0	31.2	-53.5			49.6	577.4	80.4	31.8	1.000011
78500.0	30.5	-53.2			48.4	577.8	81.4	29.0	1.000011
79000.0	29.7	-52.8			47.1	578.3	83.8	26.0	1.000010
79500.0	29.1	-52.2			45.9	579.1	86.6	23.0	1.000010
80000.0	28.5	-51.7			44.8	579.8	88.4	21.2	1.000010
80500.0	27.9	-51.1			43.7	580.5	89.3	19.8	1.000010
81000.0	27.2	-50.6			42.6	581.2	90.2	18.5	1.000009
81500.0	26.6	-50.1			41.5	581.9	91.4	17.4	1.000009
82000.0	26.0	-49.5			40.4	582.6	92.6	16.4	1.000009
82500.0	25.5	-49.0			39.4	583.3	94.1	15.4	1.000009
83000.0	24.9	-48.5			38.4	584.0	94.2	14.4	1.000009
83500.0	24.4	-47.9			37.4	584.7	92.6	13.4	1.000008

UPPER AIR DATA
1100160030

STATION ALTITUDE 4051.77 FEET MSL
20 APR. 61 1000 HRS MST
ASCENSION NO. 30

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 10 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.7	-47.5			36.5	585.2	90.8	12.3	1.000008
84500.0	23.1	-47.3			35.7	585.3	88.6	11.4	1.000008
85000.0	22.6	-47.4			34.9	585.4	86.6	11.0	1.000008
85500.0	22.1	-47.3			34.1	585.5	84.4	10.7	1.000008
86000.0	21.6	-47.2			33.3	585.6	82.0	10.4	1.000007
86500.0	21.1	-47.2			32.5	585.7	80.4	12.1	1.000007
87000.0	20.6	-47.1			31.8	585.7	79.2	13.7	1.000007
87500.0	20.2	-47.0			31.1	585.8	78.2	15.4	1.000007
88000.0	19.7	-47.0			30.4	585.9	77.5	17.0	1.000007
88500.0	19.3	-47.0			29.7	585.9	77.0	18.5	1.000007
89000.0	18.8	-47.0			29.0	585.9	76.5	20.1	1.000006
89500.0	18.4	-47.0			28.4	585.9	79.6	19.5	1.000006
90000.0	18.0	-47.0			27.7	585.9	85.8	18.0	1.000006
90500.0	17.6	-46.2			27.0	586.9	92.9	16.8	1.000006
91000.0	17.2	-45.5			26.3	587.8	101.8	15.0	1.000006
91500.0	16.8	-44.7			25.7	588.8	115.0	12.8	1.000006
92000.0	16.4	-44.0			25.0	589.8	132.3	11.5	1.000006
92500.0	16.1	-43.2			24.4	590.8	148.2	11.3	1.000005
93000.0	15.7	-42.4			23.7	591.7	149.4	10.8	1.000005
93500.0	15.4	-41.7			23.1	592.7	150.6	10.3	1.000005
94000.0	15.0	-40.9			22.6	593.7	152.0	9.9	1.000005
94500.0	14.7	-40.3			22.0	594.4	146.4	8.5	1.000005
95000.0	14.4	-40.1			21.5	594.7	138.2	7.2	1.000005
95500.0	14.1	-39.9			21.0	595.0	126.6	6.1	1.000005
96000.0	13.8	-39.7			20.5	595.2	110.9	5.2	1.000005
96500.0	13.5	-39.5			20.1	595.5	89.6	4.6	1.000004
97000.0	13.2	-39.3			19.6	595.8	65.7	4.7	1.000004
97500.0	12.9	-39.1			19.2	596.0	45.9	5.5	1.000004
98000.0	12.6	-38.9			18.7	596.3	36.3	6.6	1.000004
98500.0	12.3	-38.7			18.3	596.6	35.2	7.7	1.000004
99000.0	12.1	-38.5			17.9	596.8	34.4	8.7	1.000004
99500.0	11.8	-38.2			17.5	597.1	33.7	9.7	1.000004
100000.0	11.5	-38.0			17.1	597.4	35.3	10.6	1.000004
100500.0	11.3	-37.8			16.7	597.6	38.6	11.2	1.000004
101000.0	11.0	-37.6			16.3	597.9	41.4	11.9	1.000004
101500.0	10.7	-37.4			16.0	598.2	44.6	12.7	1.000004
102000.0	10.5	-36.6			15.6	599.2	51.4	15.4	1.000003
102500.0	10.2	-35.7			15.2	600.3	59.0	19.3	1.000003
103000.0	10.0	-34.9			14.8	601.3	63.6	23.5	1.000003
[illegible]	[illegible]	-34.0			14.4	602.2	66.9	27.6	1.000003

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1000 HRS MST
ASCENSION NO. 30

UPPER AIR DATA
1100180030
LC-37
TABLE TO CON'T

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
104000.0	9.7	-33.6			14.1	602.9	71.4	29.3	1.000003
104500.0	9.5	-33.1			13.8	603.0	76.4	30.1	1.000003
105000.0	9.3	-32.6			13.5	604.2	81.1	31.1	1.000003
105500.0	9.1	-32.0			13.1	604.9	85.4	32.4	1.000003
106000.0	8.9	-31.5			12.8	605.6	89.1	30.9	1.000003
106500.0	8.7	-31.0			12.5	606.2	93.3	28.7	1.000003
107000.0	8.5	-30.5			12.3	606.9	98.1	26.8	1.000003
107500.0	8.4	-29.9			12.0	607.6	103.6	25.0	1.000003
108000.0	8.2	-29.4			11.7	608.2	103.9	23.4	1.000003
108500.0	8.0	-28.9			11.4	608.9	102.7	21.8	1.000003
109000.0	7.8	-28.3			11.2	609.6	101.2	20.1	1.000002
109500.0	7.7	-28.2			10.9	609.7	99.6	18.5	1.000002
110000.0	7.5	-28.2			10.7	609.7	95.5	18.8	1.000002
110500.0	7.4	-28.2			10.5	609.7	91.2	19.7	1.000002
111000.0	7.2	-28.2			10.3	609.7	87.3	20.7	1.000002
111500.0	7.1	-28.2			10.0	609.7	83.8	21.7	1.000002
112000.0	6.9	-28.1			9.8	609.8	74.8	22.3	1.000002
112500.0	6.8	-28.0			9.6	610.0	64.9	23.4	1.000002
113000.0	6.6	-27.9			9.4	610.1	56.1	25.1	1.000002
113500.0	6.5	-27.8			9.2	610.3	48.5	27.3	1.000002
114000.0	6.4	-27.6			9.0	610.4	51.7	27.0	1.000002
114500.0	6.2	-27.5			8.8	610.6	58.6	26.2	1.000002
115000.0	6.1	-27.4			8.6	610.7	66.2	25.8	1.000002
115500.0	6.0	-27.3			8.5	610.9	73.7	25.8	1.000002
116000.0	5.8	-27.2			8.3	611.0	83.6	28.5	1.000002
116500.0	5.7	-27.1			8.1	611.1	92.2	32.9	1.000002
117000.0	5.6	-27.1			7.9	611.1	98.7	37.9	1.000002
117500.0	5.5	-27.0			7.8	611.2	103.6	43.2	1.000002
118000.0	5.4	-26.9			7.6	611.3			1.000002
118500.0	5.3	-26.8			7.4	611.4			1.000002
119000.0	5.2	-26.8			7.3	611.5			1.000002
119500.0	5.1	-26.7			7.1	611.6			1.000002
120000.0	4.9	-26.6			7.0	611.7			1.000002
120500.0	4.8	-26.5			6.8	611.8			1.000002

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1000 HRS MST
ASCENSION NO. 30

MANDATORY LEVELS
1100180030
LC-37
TABLE II

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT		DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE		PERCENT	DEGREES(TN)	KNOTS
850.0	[illegible]	[illegible]	-2.7	23.	240.5	5.8
800.0	[illegible]	[illegible]	-5.2	26.	188.0	6.9
750.0	[illegible]	[illegible]	-7.1	32.	180.2	8.4
700.0	10331.	[illegible]	-9.7	38.	183.3	12.0
650.0	12285.	-1.0	-14.2	38.	188.2	24.9
600.0	14363.	-3.9	-24.2	19.	202.7	26.2
550.0	16601.	-8.0	-27.8	18.	215.6	23.1
500.0	19007.	-13.2	-31.9	19.	225.0	30.1
450.0	21606.	-19.4	-36.9	19.	230.4	29.0
400.0	24441.	-26.4	-42.5	20.	230.6	26.8
350.0	27558.	-35.1	-48.7	21.	245.9	34.1
300.0	31035.	-42.8			247.7	42.1
250.0	34987.	-50.8			245.6	60.1
200.0	39704.	-56.5			242.7	77.5
175.0	42469.	-58.1			242.3	90.2
150.0	45658.	-56.5			242.9	80.0
125.0	49413.	-50.6			240.4	77.8
100.0	53930.	-63.1			241.1	44.2
80.0	58448.	-62.6			240.3	21.8
70.0	61121.	-67.1			250.3	11.6
60.0	64195.	-64.0			176.0	6.0
50.0	67902.	-60.2			99.8	13.6
40.0	72503.	-57.0			78.7	15.2
30.0	78535.	-52.3			82.9	27.0
25.0	82431.	-48.6			94.9	15.0
20.0	87272.	-47.0			78.0	15.8
15.0	93578.	-49.9			152.0	9.3
10.0	102725.	-38.8			65.3	25.5
7.0	111047.	-28.2			82.4	22.0
5.0	118995.	-26.6				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 11 1147 HRS MST
ASCENSION NO. 282

SIGNIFICANT LEVEL DATA
11000202B2
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 12

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
979.0	3989.0	25.0	.5	19.0
950.0	4966.1	19.8	.3	27.0
750.0	8442.9	9.9	-4.1	37.0
700.0	10307.3	4.2	-8.1	47.0
691.7	10622.4	4.2	-15.0	23.0
623.2	13380.4	-2.2	-22.7	19.0
578.0	15312.5	-3.9	-24.7	18.0
500.0	19041.0	-12.3	-31.1	19.0
400.0	24508.5	-25.5	-41.6	20.0
375.4	25997.4	-29.8	-44.8	22.0
315.4	30018.0	-39.1	-50.0	21.0

STATION ELEVATION 3,380.00 FEET MSL
20 APR. 1 1140 HRS MST
ASCENSION NO. 20

UPPER AIR DATA
1100020262
WHITE SANDS
TABLE 13

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	879.6	25.8	.5	19.0	1022.2	674.5	230.0	7.0	1.000255
4000.0	879.3	25.7	.5	19.1	1022.0	674.4	229.6	7.0	1.000255
4500.0	864.0	22.7	.6	23.2	1014.6	671.0	216.4	9.6	1.000254
5000.0	849.0	19.7	.3	27.1	1007.1	667.6	209.6	12.5	1.000252
5500.0	833.8	18.3	-.3	28.5	994.0	666.0	204.4	15.5	1.000248
6000.0	819.9	16.9	-.8	30.0	981.1	664.3	201.4	18.5	1.000245
6500.0	806.3	15.4	-1.4	31.4	968.4	662.7	202.7	18.1	1.000241
7000.0	790.0	14.0	-2.1	32.8	956.0	661.0	204.2	17.6	1.000237
7500.0	775.9	12.6	-2.7	34.3	943.7	659.3	206.0	16.6	1.000233
8000.0	762.1	11.2	-3.4	35.7	931.5	657.7	204.4	15.7	1.000230
8500.0	748.4	9.7	-4.1	37.3	919.6	656.0	201.6	14.8	1.000226
9000.0	734.7	8.2	-4.8	40.0	907.7	654.2	197.2	15.0	1.000223
9500.0	721.2	6.7	-5.1	42.7	895.9	652.4	192.6	15.9	1.000220
10000.0	708.0	5.1	-5.7	45.4	884.4	650.6	192.6	17.2	1.000217
10500.0	695.0	4.2	-10.9	32.3	871.7	649.3	195.6	19.0	1.000207
11000.0	682.0	3.3	-16.1	22.5	859.5	648.1	199.3	20.5	1.000200
11500.0	669.2	2.2	-17.5	21.7	846.0	646.7	203.6	21.4	1.000196
12000.0	656.6	1.0	-18.8	21.0	833.7	645.3	207.6	22.4	1.000193
12500.0	644.3	-.2	-20.2	20.3	821.6	643.9	209.1	23.3	1.000189
13000.0	632.2	-1.5	-21.6	19.6	809.7	642.5	210.9	24.2	1.000186
13500.0	620.3	-2.8	-22.9	18.9	797.4	641.3	212.5	25.1	1.000183
14000.0	608.5	-2.7	-23.3	18.7	783.5	640.8	213.3	25.3	1.000179
14500.0	597.0	-3.2	-23.8	18.5	769.9	640.3	213.9	25.2	1.000176
15000.0	585.6	-3.6	-24.3	18.3	756.5	639.8	214.3	25.4	1.000173
15500.0	574.4	-4.3	-25.0	18.1	743.9	638.9	214.7	25.6	1.000170
16000.0	563.3	-5.4	-25.8	18.0	732.6	637.6	215.7	26.2	1.000167
16500.0	552.3	-6.5	-26.7	18.3	721.4	636.2	216.9	26.8	1.000164
17000.0	541.6	-7.7	-27.9	19.3	710.5	634.9	218.3	27.2	1.000162
17500.0	531.1	-8.8	-28.9	19.6	699.7	633.5	219.5	27.6	1.000159
18000.0	520.8	-10.0	-29.8	19.7	689.1	632.1	220.5	28.1	1.000156
18500.0	510.7	-11.1	-30.9	19.4	678.6	630.8	221.5	28.6	1.000154
19000.0	500.8	-12.2	-31.8	19.6	668.4	629.4	222.5	29.3	1.000151
19500.0	490.7	-13.4	-32.7	19.	657.9	628.0	223.3	30.2	1.000149
20000.0	480.8	-14.6	-33.5	19.	647.7	626.7	224.2	30.7	1.000146
20500.0	471.1	-15.7	-33.7	19.	637.6	625.0	225.7	30.0	1.000144
21000.0	461.6	-17.0	-34.3	19.0	627.7	623.6	227.2	29.4	1.000142
21500.0	452.2	-18.2	-35.2	19.0	617.9	622.1	228.3	28.7	1.000139
22000.0	443.0	-19.3	-35.5	19.	608.3	620.6	229.6	29.0	1.000137
22500.0	433.9	-20.5	-37.1	19.	598.9	619.1	230.5	29.5	1.000135
23000.0	425.0	-21.8	-38.0	19.	589.6	617.6	232.1	28.8	1.000133

STATION ALTITUDE 4084.00 FEET MSL
20 APR. 81 1140 HRS MST
ASCENSION NO. 282

UPPER AIR DATA
1100020282
WHITE SANDS
TABLE 13 CONT'T

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	410.8	-23.1	-39.8	19.6	580.5	616.1	233.8	27.8	1.000130
24000.0	400.4	-24.3	-40.8	19.9	571.5	614.6	236.5	26.2	1.000128
24500.0	390.1	-25.5	-41.7	20.0	562.7	613.1	237.9	25.3	1.000126
25000.0	381.8	-26.9	-42.7	20.7	554.2	611.4	238.6	24.9	1.000124
25500.0	385.6	-28.4	-43.6	21.3	545.8	609.6	235.0	27.5	1.000122
26000.0	379.6	-29.8	-44.6	22.0	537.6	607.8	233.1	31.0	1.000120
26500.0	367.5	-31.0	-45.6	21.9	529.6	606.3	232.6	35.6	1.000118
27000.0	359.6	-32.1	-46.7	21.8	519.7	604.9	234.6	37.9	1.000116
27500.0	351.9	-33.3	-47.7	21.6	511.0	603.4	236.4	39.1	1.000114
28000.0	344.3	-34.4	-48.8	21.5	502.4	601.9	236.2	38.4	1.000112
28500.0	336.9	-35.6	-49.8	21.4	494.0	600.5	236.5	39.2	1.000110
29000.0	329.7	-36.7	-50.9	21.3	485.8	599.0			1.000109
29500.0	322.6	-37.9	-51.9	21.3	477.7	597.5			1.000107
30000.0	315.6	-39.1	-53.0	21.0	469.7	596.1			1.000105

STATION ALTITUDE 3050.00 FEET (ASL)
20 APR. [illegible] 1140 [illegible]
ASCENSION NO. [illegible]

MANDATORY LEVELS
110002[illegible]
WHITE SANDS
TABLE 1A

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE (MILLIBARS)	HEIGHT (FEET)	TEMPERATURE AIR (DEGREES CENTIGRADE)	TEMPERATURE DEW POINT (DEGREES CENTIGRADE)	RELATIVE HUMIDITY PERCENT	WIND DATA DIRECTION (DEGREES FROM)	WIND DATA SPEED (KNOTS)
850.0	4952.	[illegible]	[illegible]	27.	209.3	12.3
800.0	6660.	15.0	-1.3	32.	205.1	10.0
750.0	8435.	9.0	-4.1	37.	201.9	14.9
700.0	10297.	4.2	-6.1	47.	194.3	10.3
650.0	12263.	.4	-19.0	21.	208.2	22.9
600.0	14352.	-3.1	-23.7	18.	213.6	25.3
550.0	16599.	-6.8	-26.9	18.	217.2	26.9
500.0	19014.	-12.3	-31.1	19.	222.6	29.4
450.0	21624.	-18.5	-36.1	19.	229.2	28.6
400.0	24468.	-25.5	-41.6	20.	237.3	25.3
350.0	27[illegible]	-33.0	-48.0	22.	230.[illegible]	39.0

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 61 1215 HRS MST
ASCENSION NO. 31

SIGNIFICANT LEVEL DATA
11001 60031
LC-37
TABLE

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	REL.HUM. PERCENT
678.3	4051.4	25.2	-.0	19.0
875.0	4158.9	20.9	.2	25.0
850.0	4278.3	19.6	-.9	26.0
788.4	7074.1	12.5	-4.1	31.0
760.6	8058.6	10.1	-5.0	34.0
716.8	9662.9	4.7	-7.7	40.0
700.0	10296.1	2.9	-12.1	32.0
681.8	10994.7	1.1	-10.7	41.0
664.6	11667.4	-1.0	-14.8	34.0
630.8	13029.4	-3.6	-23.2	20.0
606.2	14061.3	-4.1	-24.8	18.0
549.8	16563.2	-10.3	-27.4	23.0
533.8	17310.1	-11.0	-29.5	20.0
500.0	18940.3	-15.4	-33.2	20.0
487.8	19580.8	-16.5	-34.1	20.0
444.1	21845.3	-23.3	-39.9	21.0
[illegible]	[illegible]	-29.5	-44.7	21.0
378.8	25131.3	-34.2	-49.2	20.0
351.4	27330.8	-37.6		
310.2	30121.3	-48.5		
300.9	30855.8	-45.8		
271.1	33014.1	-50.4		
258.3	34783.6	-53.4		
210.8	39378.2	-58.6		
200.1	39446.3	-58.2		
175.8	42207.3	-59.7		
166.4	43250.6	-57.7		
158.4	44277.8	-56.9		
150.8	45308.8	-59.4		
144.5	[illegible]	-58.8		
136.6	47227.3	-60.9		
130.8	47971.4	-59.7		
123.8	[illegible]	-61.6		
120.0	49314.2	-61.3		
100.1	51661.9	-[illegible]		
97.1	[illegible]	-[illegible].3		
93.1	54[illegible]	-[illegible].5		
7[illegible]	59415	-[illegible].3		
70.3	6894[illegible]	-[illegible].1		
[illegible]	72[illegible]	-[illegible]		

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1215 HRS MST
ASCENSION NO. 31

SIGNIFICANT LEVEL DATA
11001B0031
1C-37
TABLE TD CON'T

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
61.[illegible]	63354.3	-61.1		
58.[illegible]	66466.5	-[illegible].7		
54.2	66873.9	-59.9		
50.8	[illegible]7[illegible].2	-58.4		
43.6	78512.3	-56.6		
39.6	7251[illegible].6	-55.9		
35.[illegible]	7[illegible]37.3	-52.7		
30.6	78545.2	-51.3		
25.6	82407.9	-48.4		
24.6	82840.2	-47.1		

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 61 1215 HRS MST
ASCENSION NO. 31

UPPER AIR DATA
1100180031
LC-37
TABLE 1C

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.4	878.3	25.2	-.6	19.0	1022.9	673.6	200.0	7.0	1.000254
4500.0	864.5	20.1	-.3	25.4	1024.3	668.0	190.3	8.3	1.000255
5000.0	849.3	16.9	-.9	26.1	1010.4	666.7	182.7	9.9	1.000250
5500.0	834.2	17.4	-1.7	27.2	997.8	664.9	177.3	11.7	1.000247
6000.0	819.4	15.8	-2.4	28.4	985.4	663.0	180.7	11.8	1.000243
6500.0	804.8	14.3	-3.2	29.6	973.2	661.2	188.6	11.4	1.000239
7000.0	790.5	12.7	-4.0	30.8	961.2	659.4	197.6	10.7	1.000235
7500.0	776.3	11.5	-4.5	32.3	948.1	657.9	206.5	10.3	1.000232
8000.0	762.2	10.2	-5.0	33.8	935.0	656.5	203.7	10.6	1.000228
8500.0	748.3	8.6	-5.7	35.7	923.3	654.6	201.1	11.3	1.000225
9000.0	734.6	6.9	-6.5	37.5	911.9	652.6	199.0	13.4	1.000221
9500.0	721.1	5.2	-7.4	39.4	900.7	650.6	197.9	15.4	1.000218
10000.0	707.8	3.7	-10.0	35.7	889.2	648.8	199.9	17.4	1.000212
10500.0	694.6	2.4	-11.6	34.6	877.1	647.1	200.6	18.9	1.000208
11000.0	681.7	1.1	-12.3	40.8	864.6	645.6	199.1	19.3	1.000206
11500.0	668.8	-.5	-13.8	35.2	853.5	643.7	200.3	19.1	1.000201
12000.0	656.2	-1.6	-14.7	30.6	841.1	642.2	203.2	19.2	1.000196
12500.0	643.7	-2.6	-19.7	25.8	828.2	641.0	207.4	22.6	1.000191
13000.0	631.5	-3.5	-23.0	20.3	815.5	639.9	209.3	24.2	1.000187
13500.0	619.5	-3.8	-24.0	19.1	800.8	639.5	210.4	24.6	1.000183
14000.0	607.6	-4.1	-24.7	18.2	786.3	639.2	212.3	21.9	1.000179
14500.0	595.9	-5.2	-25.2	18.0	774.3	637.9	214.0	20.6	1.000177
15000.0	584.4	-6.4	-25.7	18.9	762.9	636.4	214.9	21.6	1.000174
15500.0	573.1	-7.7	-26.2	20.9	751.7	634.9	215.4	22.8	1.000171
16000.0	562.0	-8.9	-26.7	21.9	740.6	633.4	215.6	24.3	1.000169
16500.0	551.2	-10.1	-27.3	22.9	729.7	631.9	215.8	25.7	1.000166
17000.0	540.4	-10.7	-28.6	21.2	717.0	631.2	215.8	27.0	1.000163
17500.0	529.8	-11.5	-29.9	20.0	705.1	630.3	217.1	28.2	1.000160
18000.0	519.3	-12.9	-31.0	20.0	694.8	628.6	218.5	29.2	1.000157
18500.0	509.0	-14.2	-32.2	20.0	684.6	627.0	221.2	28.6	1.000155
19000.0	499.0	-15.5	-33.5	20.0	674.4	625.4	224.0	27.9	1.000152
19500.0	489.0	-16.4	-34.0	20.0	663.2	624.8	226.6	26.8	1.000150
20000.0	479.1	-17.8	-35.1	20.0	653.4	622.7	228.8	26.1	1.000147
20500.0	469.4	-19.3	-36.3	20.4	643.9	620.8	228.6	26.7	1.000145
21000.0	459.9	-20.8	-37.4	20.6	634.6	619.0	228.4	27.4	1.000143
21500.0	450.5	-22.3	-38.6	20.8	625.5	617.1	227.3	28.2	1.000141
22000.0	441.3	-23.7	-39.8	21.0	616.2	615.4	226.9	28.5	1.000138
22500.0	432.1	-24.9	-40.1	21.0	606.4	613.8	227.6	28.2	1.000136
23000.0	423.1	-26.2	-41.5	21.0	596.8	612.3	228.3	28.5	1.000134
23500.0	414.3	-27.6	-42.9	21.0	587.3	610.7	229.0	29.2	1.000132

STATION ALTITUDE 4651.37 FEET MSL
20 APR. 81 1215 HRS MST
ASCENSION NO. 3[illegible]

UPPER AIR DATA
1100180031
LC-37
TABLE 1b CON'T

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.7	-28.7	[illegible]	21.0	578.0	609.2	229.1	31.0	1.000130
24500.0	397.2	-29.9	-45.1	20.5	568.9	607.6	229.1	32.8	1.000127
25000.0	388.8	-31.2	-46.5	20.[illegible]	559.8	606.0	229.9	34.3	1.000125
25500.0	380.5	-32.5	-47.6	20.4	550.8	604.4	230.6	35.6	1.000123
26000.0	372.4	-33.8	-48.8	20.[illegible]	542.0	602.7	231.3	36.2	1.000121
26500.0	364.4	-35.2	-53.0	14.1**	533.5	601.0	232.2	36.6	1.000119
27000.0	356.5	-36.6	-61.5	5.6**	525.1	599.1	233.8	37.0	1.000117
27500.0	348.8	-38.0			516.7	597.4	236.9	37.3	1.000115
28000.0	341.0	-39.3			508.0	595.6	241.9	37.7	1.000113
28500.0	333.5	-40.5			499.4	594.2	244.6	38.5	1.000111
29000.0	326.1	-41.7			490.9	592.6	245.3	39.4	1.000109
29500.0	318.9	-43.0			482.7	591.1	243.9	41.0	1.000108
30000.0	311.9	-44.2			474.6	589.5	242.0	42.6	1.000106
30500.0	304.9	-45.2			466.0	588.2	242.5	43.9	1.000104
31000.0	298.0	-46.2			457.5	586.9	242.6	45.5	1.000102
31500.0	291.2	-47.2			449.1	585.5	242.7	48.0	1.000100
32000.0	284.6	-48.3			440.9	584.2	242.5	51.2	1.000098
32500.0	278.1	-49.3			432.9	582.8	242.2	55.0	1.000096
33000.0	271.8	-50.4			425.0	581.5	242.3	58.0	1.000095
33500.0	265.5	-51.2			416.7	580.4	242.5	60.5	1.000093
34000.0	259.3	-52.1			408.7	579.3	242.9	62.5	1.000091
34500.0	253.3	-52.9			400.7	578.1	243.4	64.3	1.000089
35000.0	247.4	-53.7			392.8	577.1	243.7	66.0	1.000087
35500.0	241.6	-54.4			384.8	576.1	244.0	67.5	1.000086
36000.0	235.9	-55.2			377.0	575.2	243.5	69.4	1.000084
36500.0	230.3	-55.9			369.3	574.2	242.9	71.4	1.000082
37000.0	224.9	-56.6			361.8	573.3	242.2	73.9	1.000081
37500.0	219.6	-57.3			354.5	572.3	241.5	76.3	1.000079
38000.0	214.4	-58.1			347.3	571.4	241.6	77.8	1.000077
38500.0	209.3	-58.6			339.8	570.7	241.7	79.1	1.000076
39000.0	204.[illegible]	-58.4			331.5	570.9	242.3	80.5	1.000074
39500.0	199.5	-58.2			323.3	571.1	242.9	82.0	1.000072
40000.0	194.7	-58.5			316.0	570.6	243.0	83.5	1.000070
40500.0	190.[illegible]	-58.8			308.9	570.4	242.9	84.9	1.000069
41000.0	185.5	-59.0			301.9	570.0	242.5	85.4	1.000067
41500.0	181.[illegible]	-59.7			295.0	569.7	241.9	85.5	1.000066
42000.0	177.[illegible]	-59.[illegible]			288.3	569.5	241.[illegible]	85.4	1.000064
42500.0	172.[illegible]	-59.1			280.9	569.[illegible]	241.0	85.1	1.000063
43000.0	168.[illegible]	-59.2			272.9	571.2	240.[illegible]	84.5	1.000061
[illegible]	[illegible]	[illegible]			265.6	572.1	[illegible]	[illegible]	1.000059

[illegible] MISSING VALUE [illegible]

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1215 HRS MST
ASCENSION NO. 31

UPPER AIR DATA
11001800031
LC-37
TABLE 16 CONT

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	160.5	-57.1			258.8	572.6	239.0	83.3	1.000058
44500.0	156.7	-57.4			253.0	572.2	238.3	83.7	1.000056
45000.0	153.0	-58.5			248.3	570.8	237.6	84.1	1.000055
45500.0	149.3	-59.5			243.5	569.4	237.7	84.3	1.000054
46000.0	145.8	-60.1			238.3	568.7	237.8	83.6	1.000053
46500.0	142.3	-60.5			233.0	568.1	238.1	81.6	1.000052
47000.0	138.8	-60.9			227.8	567.6	238.3	79.3	1.000051
47500.0	135.5	-59.9			221.3	569.0	240.0	76.5	1.000049
48000.0	132.2	-60.5			216.6	568.1	241.4	72.9	1.000048
48500.0	129.0	-61.4			212.3	566.9	243.0	67.9	1.000047
49000.0	125.9	-61.6			207.4	566.7	243.9	62.6	1.000046
49500.0	122.9	-61.4			202.2	566.9	243.3	56.6	1.000045
50000.0	119.9	-61.7			197.5	566.5	242.1	51.2	1.000044
50500.0	117.0	-62.0			193.0	566.1	239.1	47.1	1.000043
51000.0	114.2	-62.3			188.6	565.7	235.6	43.1	1.000042
51500.0	111.4	-62.6			184.3	565.3	233.3	39.3	1.000041
52000.0	108.7	-62.9			180.1	564.9	230.4	35.6	1.000040
52500.0	106.0	-63.2			175.9	564.5	228.9	30.6	1.000039
53000.0	103.5	-63.5			171.9	564.1	226.9	25.5	1.000038
53500.0	101.0	-63.8			168.0	563.7	225.0	21.3	1.000037
54000.0	98.5	-64.6			164.5	562.8	222.4	17.3	1.000037
54500.0	96.1	-64.2			160.2	563.1	221.6	16.6	1.000036
55000.0	93.7	-64.5			154.3	560.7	221.0	16.1	1.000034
55500.0	91.4	-62.5			151.2	565.4	224.6	20.3	1.000034
56000.0	89.2	-63.5			148.2	564.1	227.0	24.7	1.000033
56500.0	87.0	-64.5			145.2	562.7	229.9	27.4	1.000032
57000.0	84.8	-65.5			142.3	561.4	230.6	29.5	1.000032
57500.0	82.7	-66.5			139.5	560.0	232.4	31.6	1.000031
58000.0	80.7	-67.5			136.7	558.7	233.5	29.2	1.000030
58500.0	78.7	-68.5			134.0	557.3	234.9	25.4	1.000030
59000.0	76.8	-69.5			131.3	556.0	236.5	21.5	1.000029
59500.0	74.9	-69.9			128.3	555.4	236.7	16.6	1.000029
60000.0	73.0	-67.4			123.6	558.9	235.2	11.3	1.000028
60500.0	71.2	-64.0			119.1	562.3	230.7	6.4	1.000027
61000.0	69.5	-63.2			115.3	564.5	214.7	4.8	1.000026
61500.0	67.8	-63.3			112.6	564.1	187.6	3.9	1.000025
62000.0	66.1	-63.7			110.0	563.8	159.6	3.6	1.000024
62500.0	64.5	-63.3			107.1	564.3	138.1	4.1	1.000023
63000.0	62.9	-62.9			103.9	565.1	121.7	4.9	1.000023
63500.0	[illegible]	[illegible]			101.0	567.2	108.6	5.9	1.000022

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1215 HRS MST
ASCENSION NO. 31

UPPER AIR DATA
1100180031
CABLE TO CONT

GEODETIC COORDINATES
32.40175 LAT DEG
106.51232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	59.9	-61.2			98.7	566.8	96.5	7.2	1.000022
64500.0	59.2	-61.6			96.4	566.6	91.6	8.5	1.000021
65000.0	57.1	-60.9			93.7	567.7	91.7	9.4	1.000021
65500.0	55.7	-59.4			91.0	568.9	91.8	10.4	1.000020
66000.0	54.4	-59.0			88.5	570.1	91.6	11.1	1.000020
66500.0	53.1	-59.0			86.4	570.1	91.9	11.9	1.000019
67000.0	51.8	-59.2			84.4	569.9	92.0	12.3	1.000019
67500.0	50.6	-59.3			82.4	569.7	92.2	12.4	1.000018
68000.0	49.4	-59.1			80.4	569.9	91.7	12.7	1.000018
68500.0	48.2	-58.6			78.3	570.7	87.6	14.3	1.000017
69000.0	47.1	-58.0			76.2	571.4	83.3	16.0	1.000017
69500.0	46.0	-57.5			74.2	572.1	78.1	19.1	1.000017
70000.0	44.9	-56.9			72.3	572.8	73.7	22.9	1.000016
70500.0	43.8	-56.4			70.4	573.6	72.0	26.6	1.000016
71000.0	42.8	-56.3			68.7	573.7	74.6	29.5	1.000015
71500.0	41.8	-56.2			67.1	573.9	77.2	32.5	1.000015
72000.0	40.8	-56.0			65.6	574.0	80.7	32.1	1.000015
72500.0	39.8	-55.9			63.9	574.2	84.9	31.0	1.000014
73000.0	38.9	-55.2			62.2	575.1	90.2	28.2	1.000014
73500.0	38.0	-54.6			60.5	576.0	99.1	22.4	1.000013
74000.0	37.1	-53.9			59.0	576.9	113.5	17.6	1.000013
74500.0	36.2	-53.2			57.4	577.8	115.8	16.3	1.000013
75000.0	35.4	-52.7			55.9	578.5	117.7	15.1	1.000012
75500.0	34.6	-52.5			54.6	578.7	107.7	15.6	1.000012
76000.0	33.8	-52.3			53.3	579.0	91.4	19.0	1.000012
76500.0	33.0	-52.1			52.0	579.2	81.5	23.1	1.000012
77000.0	32.2	-51.9			50.8	579.5	81.7	24.2	1.000011
77500.0	31.5	-51.7			49.5	579.7	82.0	25.4	1.000011
78000.0	30.7	-51.5			48.4	580.0	82.4	24.5	1.000011
78500.0	30.1	-51.3			47.2	580.2	82.5	22.4	1.000011
79000.0	29.4	-51.0			46.1	580.7	82.5	20.5	1.000010
79500.0	28.7	-50.6			44.9	581.2	79.6	18.8	1.000010
80000.0	28.0	-50.2			43.8	581.7	76.5	17.2	1.000010
80500.0	27.4	-49.8			42.8	582.1	71.7	16.9	1.000010
81000.0	26.8	-49.5			41.7	582.6	66.6	23.9	1.000009
81500.0	26.2	-49.1			40.7	583.1			1.000009
82000.0	25.6	-48.8			39.7	583.6			1.000009
82500.0	25.0	-48.4			38.7	584.1			1.000009

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 81 1215 HRS MST
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MANDATORY LEVELS
1100180031
LC-37
TABLE II

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEW POINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	4975.	10.9	-.9	26.	183.0	9.8
800.0	6665.	13.8	-3.5	30.	191.6	11.2
750.0	8433.	8.8	-5.6	35.	201.4	11.1
700.0	10286.	2.9	-12.1	32.	200.9	18.6
650.0	12235.	-2.1	-18.1	28.	205.4	20.8
600.0	14310.	-4.8	-25.1	19.	213.7	20.2
550.0	16533.	-10.3	-27.4	23.	215.8	25.8
500.0	18922.	-15.4	-33.2	20.	223.7	28.0
450.0	21500.	-22.3	-38.7	21.	227.2	28.3
400.0	24298.	-29.5	-44.7	21.	229.0	32.2
350.0	27372.	-37.8			235.9	37.3
300.0	30796.	-45.9			242.9	44.7
250.0	34708.	-53.8			243.6	65.2
200.0	39302.	-58.2			242.8	81.8
175.0	42101.	-59.7			241.3	85.3
150.0	45287.	-59.4			237.7	84.2
125.0	49012.	-61.4			243.8	61.1
100.0	53528.	-63.9			224.3	20.0
80.0	58003.	-67.8			234.0	28.0
70.0	60538.	-63.1			221.7	5.3
60.0	63756.	-61.8			97.2	7.1
50.0	67999.	-59.6			92.3	12.5
40.0	72128.	-55.9			83.8	31.3
30.0	76807.	-51.3			82.9	22.4
25.0	82170.	-49.0				